









```

QY 959 acaagctgtttatgaagatttatgagctcttattctctgaagaaataaattatataat 1018
DB      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
XX 9154 TAAATTTTAAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAAT 9095
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
XX 1019 atatgtatgttaagacacaaagacacacacacacacacacacacacacacacacac 1078
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
XX 9094 AAAAAAAGCCAAAAAAGCCAAAAAAGCCAAAAAAGCCAAAAAAGCCAAAAAAGCCAAAA 9035
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
XX 1076 aatataatcctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1138
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 9034 AAAAAAATATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8975
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1139 taacaataatgaagcaatataatgttttaagaataatcacaagaatttcgttaata 1198
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8974 TCAAAATTAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8915
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1199 tattaa-tatgtacacacacacacacacacacacacacacacacacacacacacac 1256
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8914 AAAAAAATATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8855
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1257 tatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1316
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8854 AATAAATCAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8795
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1317 gaataatccacacacacacacacacacacacacacacacacacacacacacacac 1376
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8794 CAAAAATTCATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8745
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1377 gaagaataatgaagaagctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1436
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8734 CAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCAACCA 8675
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1437 aagatgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 1496
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8674 AAAAAATCAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8615
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1497 ttatttaactttatgaactttgagatgaatgaatgaatgaatgaatgaatgaatga 1556
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8614 TAAAAAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8555
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1557 ttctatttgattttaataataatgaatgaatgaatgaatgaatgaatgaatgaatga 1616
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8554 AATAAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA 8495
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1617 aaaaa 1621
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 8494 AAAAA 8490
XX      ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

RESUME 5
AAX33181
ID AAX33181 standard; DNA: 6644 BP.
XX
AC
XX
XX
DI 25-JUN-1999 (first entry)
DE
DE base sequence of the plasmid pEX (res. bsr).
XX
XX (Cowpox virus; bsr: viral vector; expression; apoptosis; resistance;
KW crmA; bel-2; bcl-x1; FLIP; surviving; IAP; ILP; adenovirus; cancer;
KW autoimmune disease; graft rejection reaction; inflammation;
KW inflammatory disease; SS.
XX
OS Synthetic.
OS Cowpox virus.
XX
PN WC9913073-A2.
XX
PD 16-MAR-1999.
XX
XX 07-SEP-1998; 98W0-JP04010.
XX
XX

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DB 838 1027 1737-1752/2001
XX (Pope) J. 1999. Ann. N.Y. Acad. Sci. 884: 1-10.
XX Hamada H.
XX W. J. 1999. 1371-1380.
XX
PT New apoptosis-resistant virus sensitive cell.
XX
XX Example 1: Para 36-41; 51pp; English.
XX
XX The present invention describes an apoptosis-resistant virus-sensitive
XX cell line into which an apoptosis resistance gene has been introduced.
XX The recombinant viruses generated are capable of expressing apoptosis-
XX associated genes, these can then be used in a variety of diseases for
XX which the induction of apoptosis by gene transfer, or where the
XX inhibition of harmful apoptosis, is therapeutic. The recombinant viruses
XX are useful as vectors for gene therapy which can be applied to cancer
XX therapy for destroying cancer cells selectively. The treatment of
XX autoimmune diseases and graft rejection reactions and apoptosis induction
XX therapy for inflammatory cells in inflammatory diseases. Prior arts have
XX characterized the problem where if an adeno-virus vector capable of
XX expressing an apoptosis associated gene is introduced into animal cells,
XX the cells producing the virus will be killed because the period of
XX time required to induce cell death by apoptosis is shorter than that
XX required to replicate and produce the virus, resulting in failure to
XX obtain a recombinant virus having the integrated apoptosis-associated
XX gene. In this invention an apoptosis resistant cell line (having an
XX apoptosis resistant gene introduced) is established and overcomes the
XX problem. The present sequence represents the base sequence of the
XX plasmid pEX-res-bsr, which contains the cowpox virus bsr gene, and
XX is used as an example from the present invention.
XX
SQ Sequence 6644 bp: 256 A; 154 C; 1424 G; 1461 T; 6644.
XX
Query Match: 655% Score 164.67 Db 201 Length 6644;
Best Local Similarity 46.98% Prod. No. 624098;
Matches 523; Mismatches 359; Indels 0; Gaps 0;
QY 927 aaaaatcttcaagctgtttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 986
DB 4719 atagagctctctctctctctctctctctctctctctctctctctctctctctctctctct 4778
QY 987 ctatttttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1046
DB 4779 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4848
QY 1147 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1106
DB 4879 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4998
QY 1107 tttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1166
DB 4899 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4958
QY 1147 tttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1226
DB 4999 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4018
QY 1227 atctctctctctctctctctctctctctctctctctctctctctctctctctctctct 1286
DB 4999 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4078
QY 1287 gaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1346
DB 4079 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4148
QY 1347 tttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 1406
DB 4199 aaaaatcttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatttcaagcatt 4198

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[illegible]

RESULT	15
AA54686/-	
110	AA54686 standard; DNA; 7442 BP.
XX	
AC	AA54686;
XX	
DE	18-DEC-2001 (first entry)
XX	
DE	Tumour suppressor gene derived chemically modified sequence #409.
XX	
KW	Human; tumour suppressor gene; oncogene, antitumour, cytostatic;
KW	carcin; tumour; CpG dinucleotide; single-nucleotide polymorphism; SNP;
KW	cytosine methylation; ds.
XX	
OS	Homo sapiens.
XX	
PN	WC200158912-A2.
XX	
PO	20-SEP-2001.
XX	
PF	15-MAR-2001; 2001W0-EP02955.
XX	
PR	15-MAR-2000; 2000DE-1014847.
PR	06-APR-2000; 2000DE-1019058.
PR	07-APR-2000; 2000DE-1019173.
PR	30-JUN-2000; 2000DE-102507.
PR	01-SEP-2000; 2000DE-1043826.
XX	
PA	(EPIC-) EPIGENOMICS AG.
XX	
PI	Gleik A. Pieper-Reich C. Berlin K;
XX	
DR	WFI: 2001-602752/68.
XX	

parameters of chemically modified genes associated with tumor suppressor genes and the probes, useful in identifying markers and probes for analysing diseases associated with cytosine methylation state e.g. cancer

claim 1: SEQ ID No. 499; 27bp: English.

the invention relates to a nucleic acid comprising a sequence of 18 bases, of a segment of chemically modified DNA (CP DNA) e.g. with bisulphite, of genes associated with tumor suppression and cancer, having a sequence taken from 4.6% (actually 5.5 since markers 499, 476 and 500 are missing from the sequence listing) sequences (SS) and sequences complementary to (SS), the nucleic acid may be a peptide nucleic acid-oligonucleotide (PNA) of at least 9 nucleotides and may form part of a set of probes for detecting the cytosine methylation state and/or stable nucleic acid polymorphisms and also to be used in an array for analysing diseases associated with CpG dinucleotides e.g. cancers and tumours, the probes can also be used as a method for ascertaining a cell's and/or organism's parameters for the diagnosis and/or therapy of existing diseases or the predisposition to specific diseases, by analysing cytosine methylations. The parameters may be compared to another set of markers and/or epigenetic parameters, the difference is used as basis for diagnosis and/or prognosis events which are disadvantageous to patients. The present sequence is one of the 533 genomic sequences derived from tumor suppressor genes and oncogenes.

Note: The sequence data for this patent did not form part of the prior art specification, but was obtained in electronic format directly from WIPAC at the Wellcome Trust/Unpublished sequences.

[illegible]

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QY 1492 ccaatttattactatatttgaacttttgaagatgatacaatttcaagggtatgaastggat 1551
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 2025 TAAAAAAATCTAAAAAAAGCTAAATAAAAAAGCAACTCTAAAAAAATAAAAAAATTT 1966
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1552 gaatatcttcttttgaatttgaataattgaactaaggaattacactttaaagaaaaa 1611
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1965 AAAAAAAAAAAAAATCTAAAAAAATTTTAAAAAAATCTAAAAATAAAAACCAA 1906
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1612 aaaaaaaa 1621
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1905 ATCTAAAAAA 1896
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

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Search completed: July 26, 2002, 23:02:16  
 Job time: 9226 sec







































